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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/699,773	10/30/2000	Tara Lynn Alvarez	2-4-3	7026
46290	7590	05/03/2005	EXAMINER	
WILLIAMS, MORGAN & AMERSON/LUCENT			SHAH, CHIRAG G	
10333 RICHMOND, SUITE 1100				
HOUSTON, TX 77042			ART UNIT	PAPER NUMBER
			2664	

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/699,773	Applicant(s) <input checked="" type="checkbox"/> ALVAREZ ET AL.	
	Examiner Chirag G Shah	Art Unit 2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: Please provide U.S. Patent/Application Number on pages 1 and 12 for the corresponding application currently referred by name. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 1 rejected under 35 U.S.C. 102(e) as being anticipated by Proctor et al. (U.S. Patent No. 6,205,125).

Referring to claim 1, Proctor discloses in **fig. 1, 4 and col. 5, lines 28-55** of a method of transmitting DSI [**speech packets**] over a communication link [**links 17, 19 and 21, as in fig. 4**] of a communication network [**network of figs. 1 and 4**], the method comprising the steps of:

transmitting an initial DSI [**transmitting a speech packet over links 17, 19 and 21**] after applying a delay to the initial DSI where such delay is based on a determined periodicity of received DSI [**as disclosed in the combination of figs. 1& 4, and col. 5, lines 13-55**, selector 36 receives speech packets from vocoder and call state information from control processor. Selector determines a temporal offset via the temporal offset

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processor including received transmission delay information for each packet based on the call state information. The temporal offset is forwarded to NA 52 and 54. **The temporal information is used by a network arbiter 350 to determine when the associated packet should be transmitted in time.** NA receives speech packets from the selectors, corresponding to a plurality of mobile units and utilizes the temporal offsets associated with each packet to determine the estimate (or the target) of the transmission of the speech packets into network communication links 17, 19 and 21. Proctor further discloses in **col. 8, lines 8-15 in combination of col. 5, lines 13-55**, for a speech communication type, MUX 340 within the selector receives a speech frame from a vocoder and each speech frame represents a 20ms of speech (determined periodicity). **As mention before, based on temporal offset that includes received transmission delays with respect to each speech packet/frames received, along with accounting for 20ms of speech received, a determination of target transmission of the speech packets into network communication links 17, 19 and 21 occurs] as claim.**

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3-15 rejected under 35 U.S.C. 103(a) as being unpatentable over Proctor et al in view of Ellis et al (U.S. Patent No. 5,4973,71).

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Referring to claim 3, Proctor et al discloses in column 3, lines 28-43 and in column 4, lines 15-32 of transmitting delay sensitive packets and non delay sensitive packets over a communications link. Proctor et al fails to disclose that the delay is further based on a defined length NDSI being transmitted. Ellis et al teaches of an efficient packet transport system for mixed traffic in which a packet fragmentation protocol allows traffic of difference classes to occupy a single physical link. Ellis et al discloses in column 7, lines 54 to column 8, lines 40 that since packets within the broadband network are of fixed or variable length, the delay is based on a defined length such as 16Kbytes of low priority data (data-delay insensitive) being transmitted. Therefore, it would have been obvious to one of ordinary skills in the art to modify the teachings of Proctor et al to include the delay based on defined length NDSI being transmitted as taught by Ellis et. al in order to accurately account for and alter non-sensitive traffic causing delay in a coexisting link to efficiently transport delay sensitive traffic with minimal switching and assembly delays.

Referring to claim 4, Proctor et al discloses of transmitting DSI in column 2, lines 50 to column 3, lines 43 comprises transmitting NDSI in a non-fragmented manner where there are no DSI to be transmitted (as disclosed in column 5, lines 28-61 that NA 50, 52 and 54 utilize the temporal offset associated with each packet to determine the estimate of the time of transmission of the packets into network communication link and that QoS information is translated into a communication type offset according to service specific requirements signifying that delay insensitive packets are transmitted when no delay sensitive information packet exists); monitoring for any received DSI (selector 34 receives speech packets from vocoder 30 and broadcast any received DSI (speech packet to the appropriate NA as disclosed in column 4, lines

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46-67); determining whether a received DSI is an initial DSI (NA 50 and 52 use the call state to determine the temporal offset to determine if the received speech packet is the first packet as described in figure 1); transmitting the received DSI as per its periodicity when such received DSI is not an initial DSI (as disclosed in column 5, lines 13 to 55, NA utilize the temporal offset associated with each packet to determine the time of transmission of the packet into network communication links). Proctor et al fails to disclose performing a fragmentation operation for NDSI to be transmitted or for NDSI being transmitted. Ellis et al discloses in claim 5 and respective portions of the specification of the fragmentation operation is performed for delay insensitive packet to be transmitted (higher priority packets (DSI) in a higher priority buffer interrupts at any time the transmission of a lower priority packet from a lower priority buffer by fragmenting the lower priority packet into one or more packets fragment of any number of bytes). Therefore, it would have been obvious to modify the teachings of Proctor et al to include the teachings of performing a fragmentation operation for NDSI as taught by Ellis et al in order to give delay sensitive traffic priority over non-sensitive traffic.

Referring to claim 5, Proctor et al discloses in column 3, lines 28-43 and in column 4, lines 15-32 of transmitting delay sensitive packets and non delay sensitive packets over a communications link. Proctor et al fails to disclose of performing a dynamic fragmentation operation. Ellis et al discloses in claim 5 and respective portions of the specification of the fragmentation operation is performed is a dynamic fragmentation operation (higher priority packets (DSI) in a higher priority buffer interrupts at any time the transmission of a lower priority packet from a lower priority buffer by fragmenting the lower priority packet into one or more packets fragment of any number of bytes). Therefore, it would have been obvious to

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modify the teachings of Proctor et al to include the teachings of performing a fragmentation operation for NDSI as taught by Ellis et al in order to give delay sensitive traffic priority over non-sensitive traffic.

Referring to claim 6, Proctor et al discloses in column 3, lines 6-43 and column 5, lines 13-55 and in figure 1 the step of determining whether a received DSI (in the NA) is an initial DSI based on information received from communication equipment (of figure 1) as claim.

Referring to claim 7, Proctor et al discloses in column 5, lines 13-55 and claim 1 the step of transmitting the DSI as per its periodicity is based on information received from communication equipment (of figure 1) as claim.

Referring to claims 8 and 10, Proctor et al discloses in figure 1 that the communication equipment is an IAD (NA) as claim.

Referring to claims 9 and 11, Proctor et al discloses in figure 1 that the communication equipment is subscriber equipment (mobile) as claim.

Referring to claim 12, Proctor et al discloses in column 3, lines 44 to column 4, lines 32 and figure 1 discloses the step of maintaining a list of transmission time for received initial DSI (determining the time of transmission of the first, second and additional packets based on the type of information contained in the first packet); establishing a transmission time for each received initial DSI (determining the time of transmission for each received speech packet); and updating the list when an initial DSI is received (upon receiving the first speech packet, the list of packets is updated as claim.

Referring to claim 13, Proctor discloses an apparatus (NA) for transmitting DSI and NDSI over a communication link 17, 19 and 21 of a communication network (figure 1) where the

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apparatus (NA) applies a delay to received initial DSI based on a determined periodicity of the received DSI (as discloses in column 5, lines 13-55 and claim 1 that the delay is based on a determined periodicity (the timing relationship between consecutive (speech) packets) of the received DSI). Proctor et al fails to disclose a defined length of NDSI being transmitted. Ellis et al teaches of an efficient packet transport system for mixed traffic in which a packet fragmentation protocol allows traffic of difference classes to occupy a single physical link. Ellis et al discloses in column 7, lines 54 to column 8, lines 40 that since packets within the broadband network are of fixed or variable length, the delay is based on a defined length such as 16Kbytes of low priority data (data-delay insensitive) being transmitted. Therefore, it would have been obvious to one of ordinary skills in the art to modify the teachings of Proctor et al to include the delay based on defined length NDSI being transmitted as taught by Ellis et. al in order to accurately account for and alter non-sensitive traffic causing delay in a coexisting link thus efficiently transporting delay sensitive traffic with minimal switching and assembly delays.

Referring to claim 14, Proctor et al discloses in figure 1 of apparatus (NA) configured as an IAD coupled to subscriber equipment (22a) and to an access network 10 as claim.

Referring to claim 15, Proctor et al discloses in figure 1 of an apparatus (NA) configured as part of host equipment (Mobile Station 22a) where such host equipment is coupled to an access network 10 (via link 17, 19 and 21) and to a packet based communication network (as disclosed in column 1, lines 13-33 and illustrated in figure 1).

Response to Arguments

6. Applicant's arguments filed 9/13/04 have been fully considered but they are not persuasive.

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7. Applicant argues that Proctor fails to teach or suggest a delay based on a determined periodicity as set forth in independent claim 1. Examiner respectfully disagrees and redirects Applicant to Proctor reference. Proctor clearly discloses in **col. 8, lines 8-15 in combination of col. 5, lines 13-55**, for a speech communication type, MUX 340 within the selector receives a speech frame from a vocoder and each speech frame represents a 20ms of speech (determined periodicity). Based on temporal offset that includes received transmission delays with respect to each speech packet/frames received, along with accounting for 20ms of speech received, a determination of target transmission of the speech packets into network communication links 17, 19 and 21 occurs. Therefore, claim 1 remains rejected.

8. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the basic timing relationship between consecutive packets or groups of packets produced by sampling DSI signals (such as voice signals) at a predetermined sampling rate; and i.e.2, Proctor does not appear to generate packets during speaker silence) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any response to this final action should be mailed to:

Box AF

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

(703)305-9051, (for formal communications; please mark "EXPEDITED
PROCEDURE)

Or:

(703)305-5403 (for informal or draft communications, please label "PROPOSED"
or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chirag G Shah whose telephone number is 571-272-3144. The examiner can normally be reached on M-F 6:45 to 4:15, 2nd Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cgs
April 22, 2005


Ajit Patel
Primary Examiner